

REMARKS

In accordance with the foregoing, claims 1 and 21-24 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-24 are pending and under consideration. Reconsideration is respectfully requested.

The Present Application

The present application is directed to a Redundant Array of Inexpensive Disks (RAID) system, which is distributed globally (Abstract, lines 1-6). To find the optimal storage arrangement, the present application stores, in a table, the following characteristics of a RAID storage unit: an identification code, a bandwidth, a communications cost and a physical distance to the storage unit. As discussed on lines 1-27 of page 27 and page 49, line 15, through page 50, line 8, the optimal combination would constitute a high bandwidth, a low communications cost and a long physical distance. Thus, when the bandwidth and communications cost are substantially constant, the evaluation value used to select the storage unit increases when the physical distance between two nodes increases.

This result is clear when considering the following equation on the last line of page 29 to line 2 of page 30: storage evaluation value = $\sum \{(\text{storage use priority of node on route}) \times (\text{weight constant})\} / (\text{hop count to last node of route})$. Thus, when the hop count is equal to one, the storage evaluation value is set to the storage use priority – as shown in FIG. 7, with routes A-B and A-G, and the corresponding calculation of storage use priority, in FIG. 6, of those routes. Furthermore, as demonstrated by the examples in FIG. 6, the use priority of a storage unit (and evaluation value of the storage unit, when the hop count is equal to one) increases when the distance increases. This behavior is specifically shown in routes A-B and E-F.

Rejections under 35 USC § 102

In item 1 on pages 3-6 of the Office Action, claims 1, 3, 11-18 and 21-23 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2003/0235155 by Boivie et al. (hereinafter referred to as "Boivie"). The Applicants respectfully traverse the Examiner's rejections of these claims, as amended.

Claims 1 and 21-23 each recite "route evaluation table ... including an identification code, a bandwidth, a communications cost and a physical distance" (e.g., claim 1 at lines 5-8). In rejecting claims 1, 3, 11-18 and 21-23, the final Office Action cites paragraph [0042] of Boivie

as teaching "a physical distance" as recited in claims 1 and 21-23 on page 3, at numbered paragraph 2, and on page 13, at numbered paragraph 14 of the final Office Action. However, Boivie states that it "is also noted that the present invention can be generalized even more by recognizing that distance, as measured by pinging" (paragraph [0042], first sentence). It is well-known in the art that "pinging" measures elapsed transmission time which is not particularly representative of physical distance, but is more closely related to the number of switches and routers on the route. Thus, the term "distance" in paragraph [0042] of Boivie, relates to a temporal distance, not a "physical distance" as recited in the independent claims.

In addition, claims 1 and 21-23 each recite "increases as the physical distance increases while there is no substantial change in the bandwidth and the communications cost (e.g., claim 1 at lines 8-9). Nothing has been cited or found in Boivie that teaches or suggests the limitation quoted above.

Therefore, it submitted that claims 1 and 21-23 as well as claims 2-20, which depend from claim 1, are patentably distinguishable over Boivie, because not every feature is stored in the "route evaluation table" as quoted above and a physical distance is not taught or suggested in Boivie.

Claim 24 recites selecting storage units based on an identification code, a bandwidth, a communications cost, and a physical distance, the probability of selecting a storage unit increase with a longer physical distance when the bandwidth and communications cost is constant" at lines 2-4. For the reasons discussed above, it is submitted that claim 24 is patentably distinguishable over Boivie.

Rejections under 35 USC § 103

In item 1 on pages 7-8 of the Office Action claim 2 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Boivie in view of U.S. Patent Publication No. 2004/0008691 by Winter et al. (hereinafter referred to as "Winter"). The Applicant respectfully traverses this rejection.

Claim 2 incorporates all the limitations of claim 1 by reference. Nothing was cited or found in Winter that suggests modification of Boivie to overcome its deficiencies discussed above with respect to claim 1. Therefore, it is submitted that claim 2 patentably distinguishes over the prior art for the reasons discussed above.

In item 3 on pages 8-12 of the Office Action claims 4-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Boivie in view of U.S. Patent No. 6,865,643, issued to Baxter III (hereinafter referred to as "Baxter"). The Applicant respectfully traverses these rejections.

Claims 4-10 incorporate all the limitations of claim 1 by reference. Nothing was cited or found in Baxter that suggests modification of Boivie to overcome its deficiencies discussed above with respect to claim 1. Therefore, it is submitted that claims 4-10 are patentably distinguishable over the prior art for the reasons discussed above.

In item 11 on pages 12-13 of the Office Action the Examiner rejected claims 19 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Boivie in view of U.S. Patent No. 6,606,694, issued to Carteau (hereinafter referred to as "Carteau"). The Applicant respectfully traverses these rejections.

Claims 19 and 20 incorporate all the limitations of claim 1 by reference. Nothing was cited or found in Carteau that suggests modification of Boivie to overcome its deficiencies discussed above with respect to claim 1. Therefore, it is submitted that claims 19 and 20 are patentably distinguishable over the prior for the reasons discussed above.

Request for Interview

The Examiner is requested to contact the undersigned to arrange an Interview, if the foregoing amendments and arguments do not overcome the outstanding rejections. If possible, the Examiner is requested to contact the undersigned in sufficient time to allow the Applicants to file a Supplemental Amendment.

Summary

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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